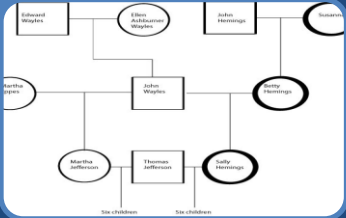


Cancer Risk Reduction: The Choices We Make Matter

Yael Sadan Zack, MD

Etiology of Cancer

Hereditary/ Non-Modifiable Risks



Environmental/ Exposures/ Modifiable Risks



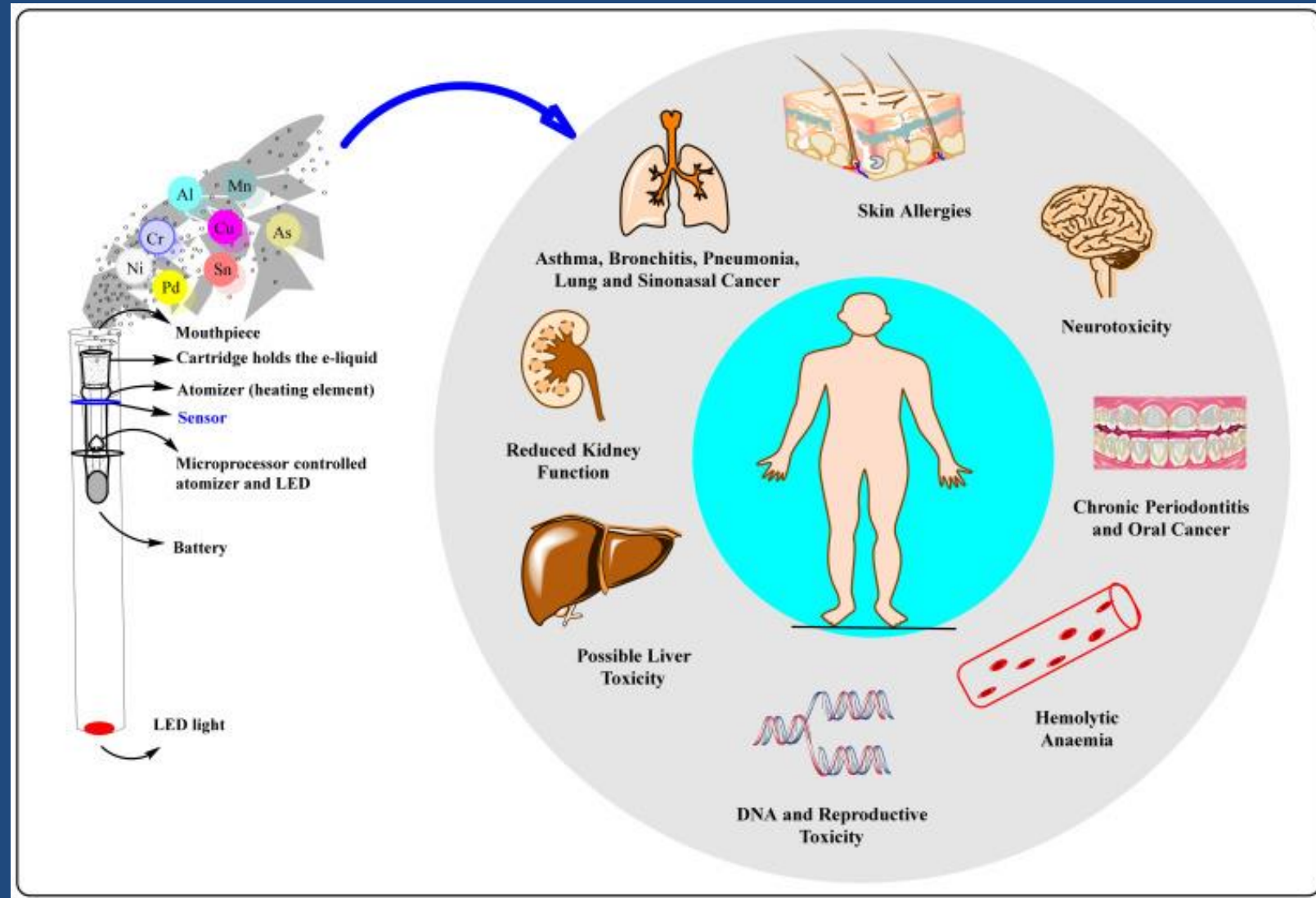
Tobacco use is the most preventable cause of cancer.

- Accounts for 30% of all cancer deaths in the US
- Associated not just with lung cancer (10-20 fold risk in smokers), but also leukemia, head and neck cancers, gastrointestinal, bladder, breast, prostate, pancreatic cancers.
- Quitting HELPS reduce the risk! (and of course prevention of initiation!)



Vaping is NOT the answer!

- Although the quantities produced by e-cigarettes are lower than those in tobacco smoke, they are nevertheless adequate to contribute to carcinogenesis because they contain the recognized carcinogens formaldehyde and acrolein.
- E-cigarette use may increase the risk of cancer as well as other diseases like cardiovascular and respiratory disease, due to the potential for harmful chemicals and flavorings in the aerosol.



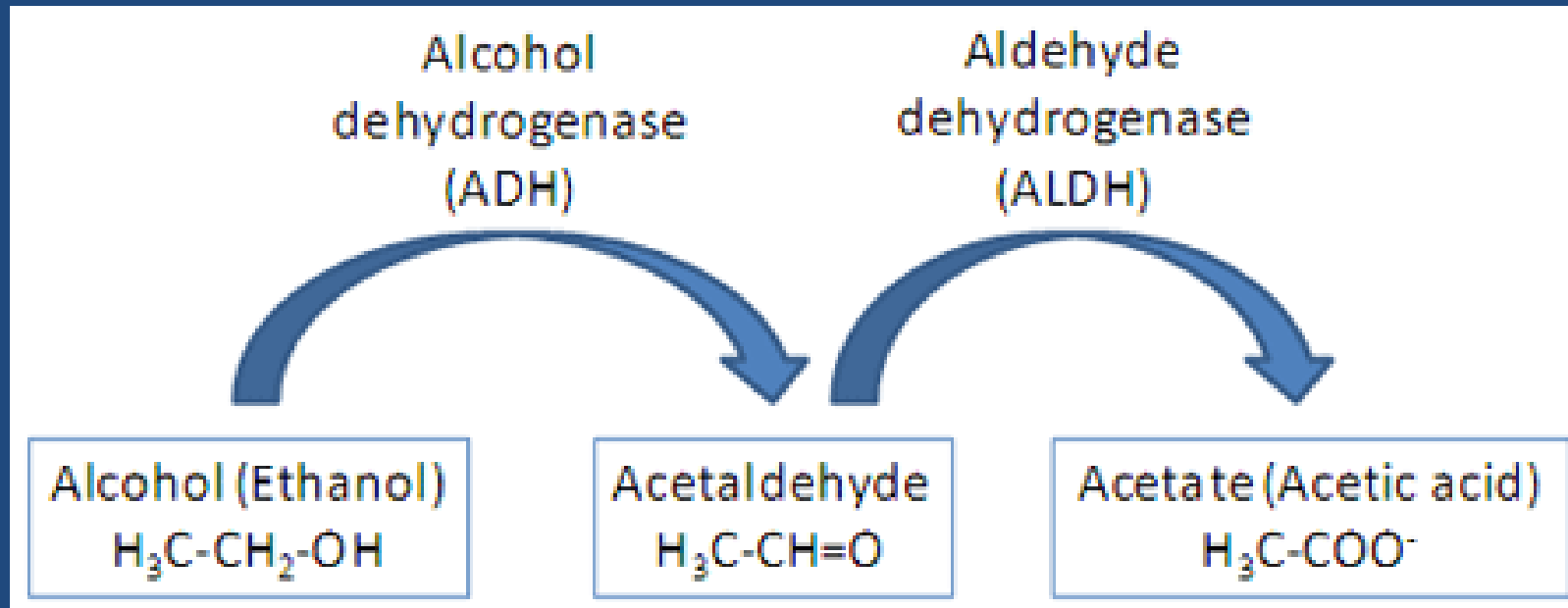
Sahu R, et al. E-Cigarettes and Associated Health Risks: An Update on Cancer Potential. Adv Respir Med. Nov 14, 2023.

ALCOHOL AS A MODIFIABLE CANCER RISK FACTOR

- Alcohol consumption accounts for 5.5% of all new cancers globally
- Alcohol increases risk of laryngeal, esophageal, colon, liver, breast cancers.
- 1 drink/day = 5-10% increase in breast cancer risk
- 1 drink/day = defines “moderate” drinking for women
- 2 drinks/day = “moderate” drinking for men



How is Alcohol a Carcinogen?



Mutagenic by binding to DNA and protein

What The U.S. Surgeon General's Advisory On Alcohol Means For Americans

Omer Awan Senior Contributor @

Dr. Omer Awan is a practicing physician who covers public health.

Follow

🔖 1

Jan 25, 2025, 06:18am EST

Updated Jan 27, 2025, 10:42am EST



NEW YORK, NEW YORK - JANUARY 03: Boxes of empty beer bottles sit outside of a store in Brooklyn on ... [+] GETTY IMAGES

Dr. Vivek Murthy, the 21st U.S. surgeon general, recently released an

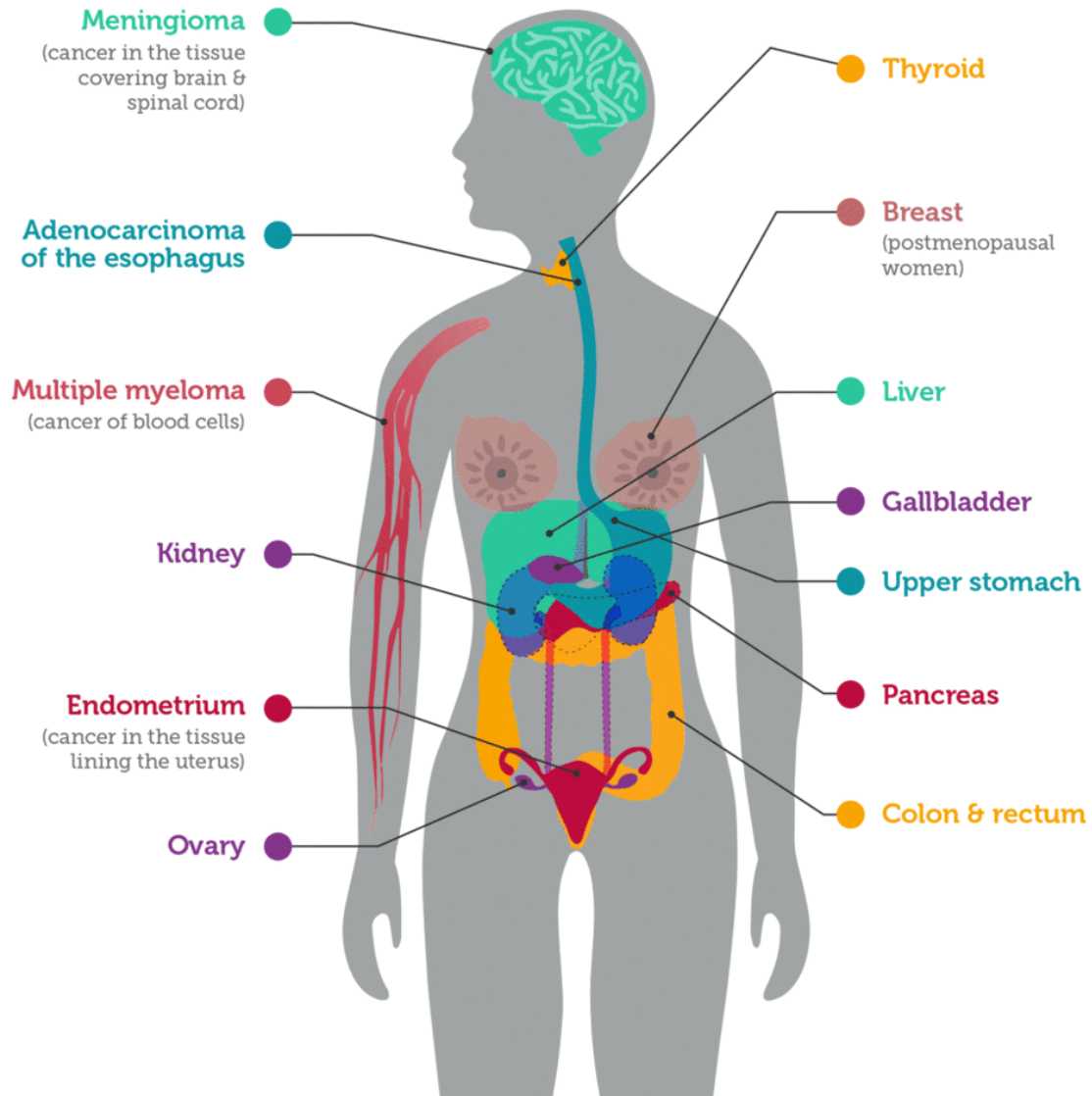
RAISE
AWARENESS
ABOUT THE LINK
BETWEEN
ALCOHOL AND
CANCER

HORMONE REPLACEMENT THERAPY

- It's complicated!
- Estrogen-only supplementation has shown in several studies to NOT increase risk of breast cancer
- BUT that increases risk of uterine cancer!
- So progesterone is added to the estrogen to protect from uterine cancer
- BUT progesterone supplementation increases risk of breast cancer!!
- So depending on someone's individual risk and other factors (do they have a uterus in place?) – we generally prefer non-hormonal solutions if possible.



Cancers Associated with Overweight & Obesity



cancer.gov/obesity-fact-sheet

Adapted from Centers for Disease Control & Prevention

The Link Between Obesity and Cancer

The NEW ENGLAND
JOURNAL of MEDICINE

ESTABLISHED IN 1812

APRIL 24, 2003

VOL. 348 NO. 17

Overweight, Obesity, and Mortality from Cancer in a Prospectively Studied Cohort of U.S. Adults

Eugenia E. Calle, Ph.D., Carmen Rodriguez, M.D., M.P.H., Kimberly Walker-Thurmond, B.A., and Michael J. Thun, M.D

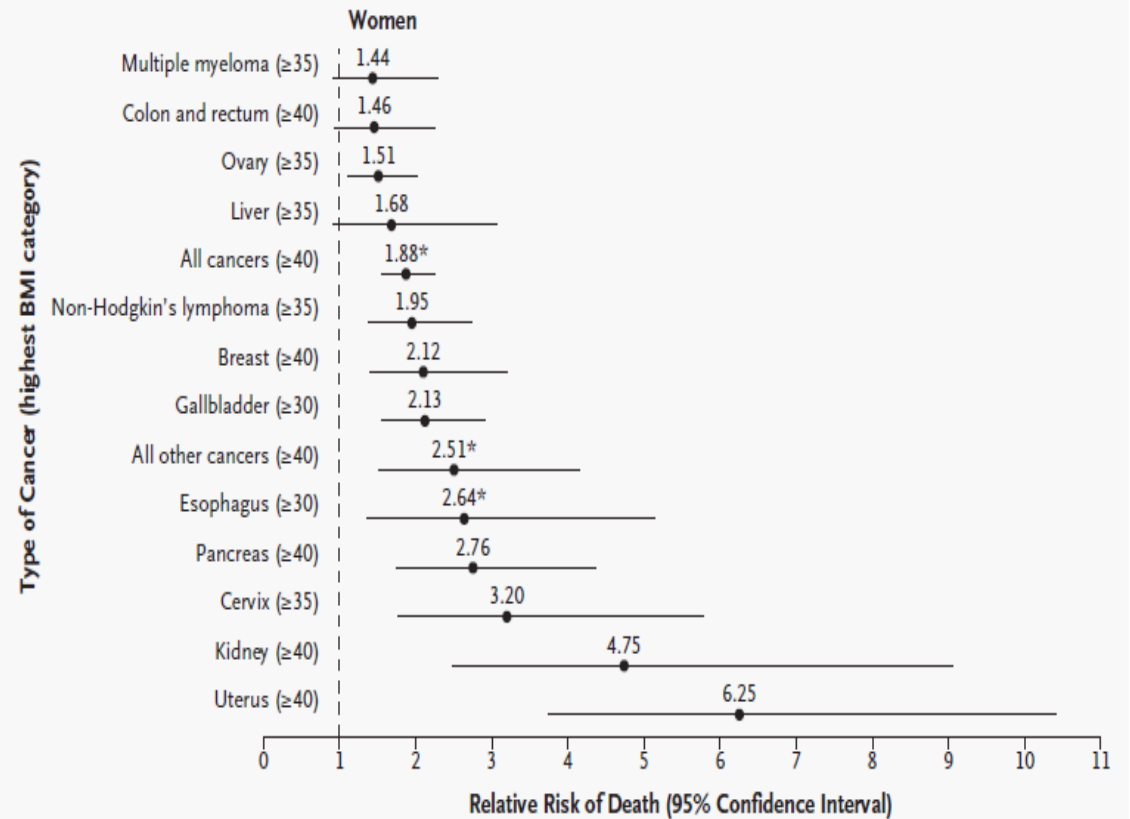
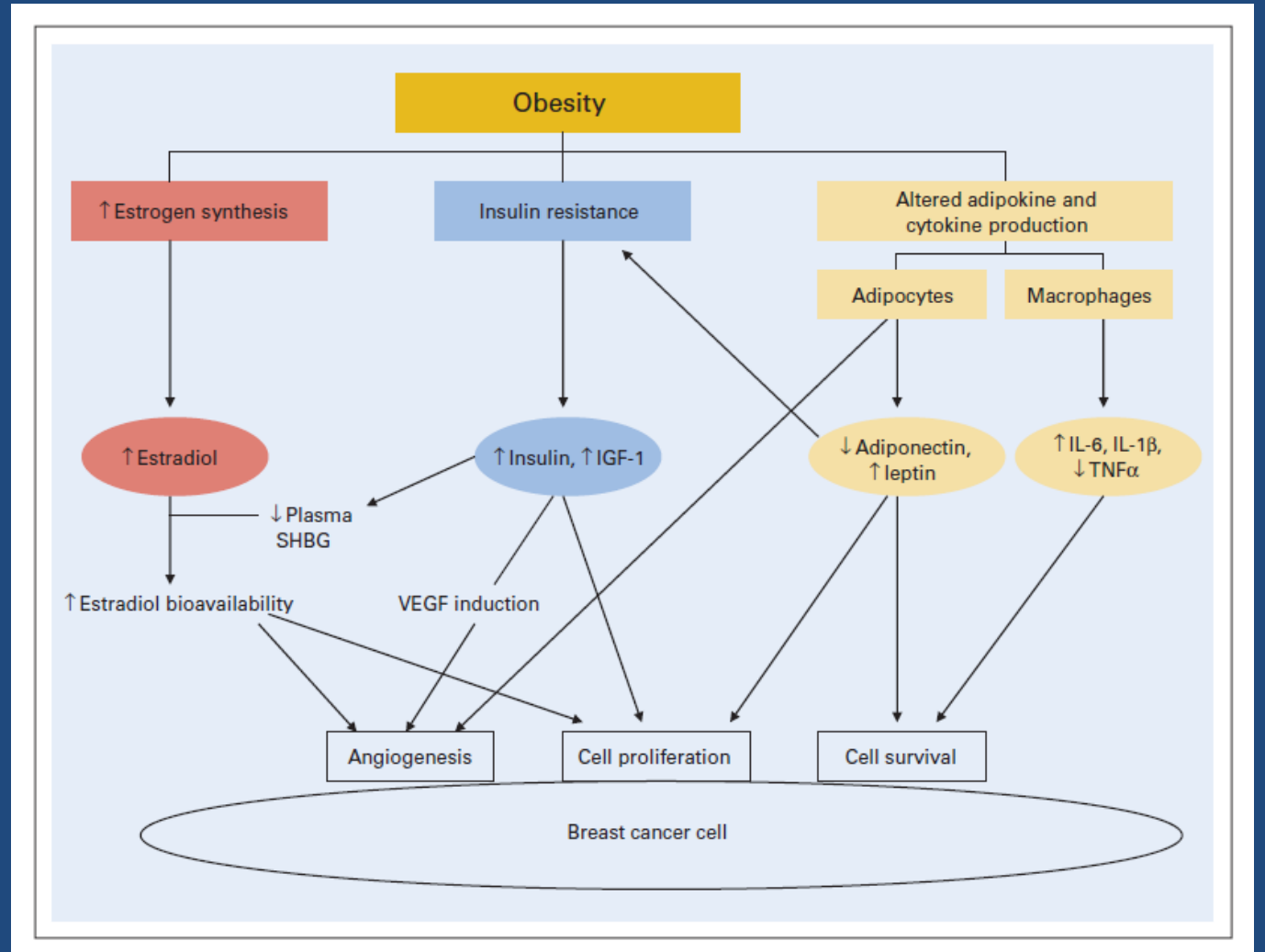


Figure 2. Summary of Mortality from Cancer According to Body-Mass Index for U.S. Women in the Cancer Prevention Study II, 1982 through 1998.

PATHWAYS THAT DIRECTLY LINK OBESITY WITH CANCER

Iyengar et al.
ASCO
Educational Book
Jan 2013.



It's not just BMI that is important; muscle and fat composition affect survival as well!

Download PDF

More

Cite This

Permissions

Original Investigation

FREE

June 2018

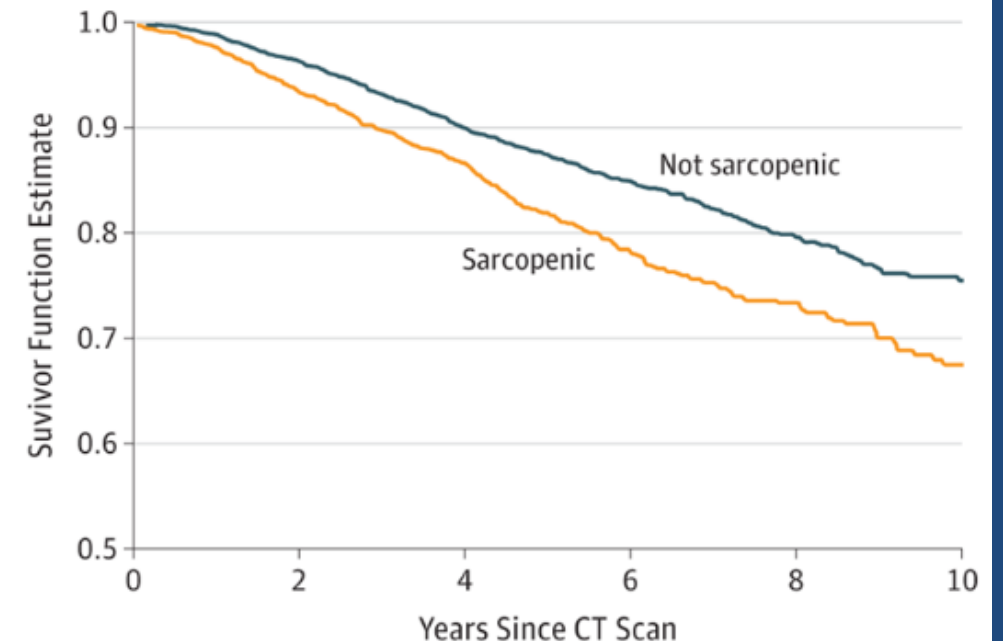
Association of Muscle and Adiposity Measured by Computed Tomography With Survival in Patients With Nonmetastatic Breast Cancer

Bette J. Caan, DrPH¹; Elizabeth M. Cespedes Feliciano, ScD¹; Carla M. Prado, PhD²; [et al](#)

[Author Affiliations](#) | [Article Information](#)

JAMA Oncol. 2018;4(6):798-804. doi:10.1001/jamaoncol.2018.0137

A Sarcopenia

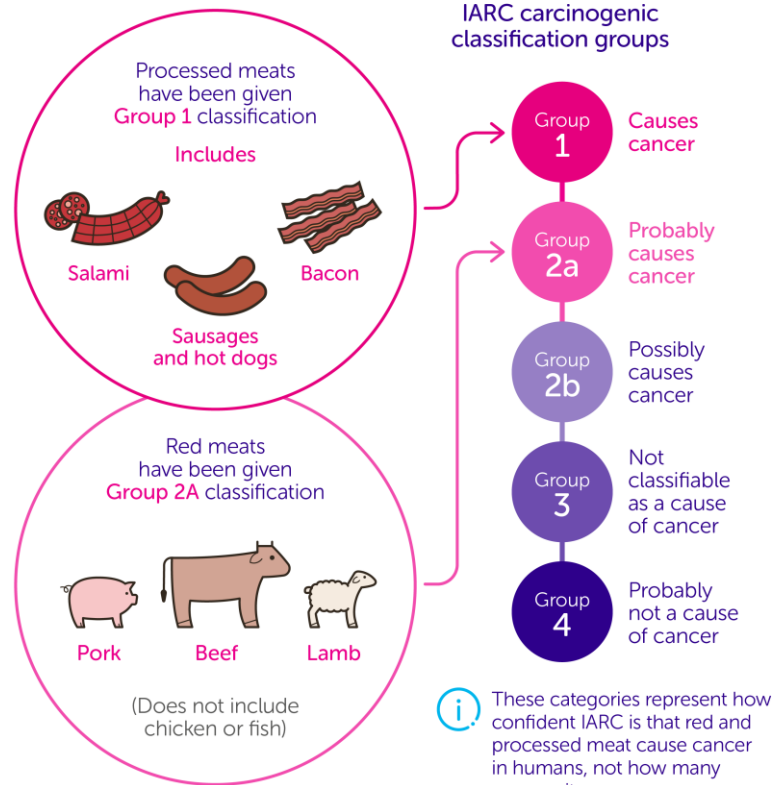




So HOW do we get there? Is there a specific diet?

- Mediterranean diet
 - Research being done for intermittent fasting and ketogenic diet
- Avoid processed and red meat
- Lean protein
- Increase vegetables, fruits, legumes, nuts
- Can consider other systems (ie vegan, moderate intermittent fasting)

Meat and cancer: How strong is the evidence?



Together we will beat cancer

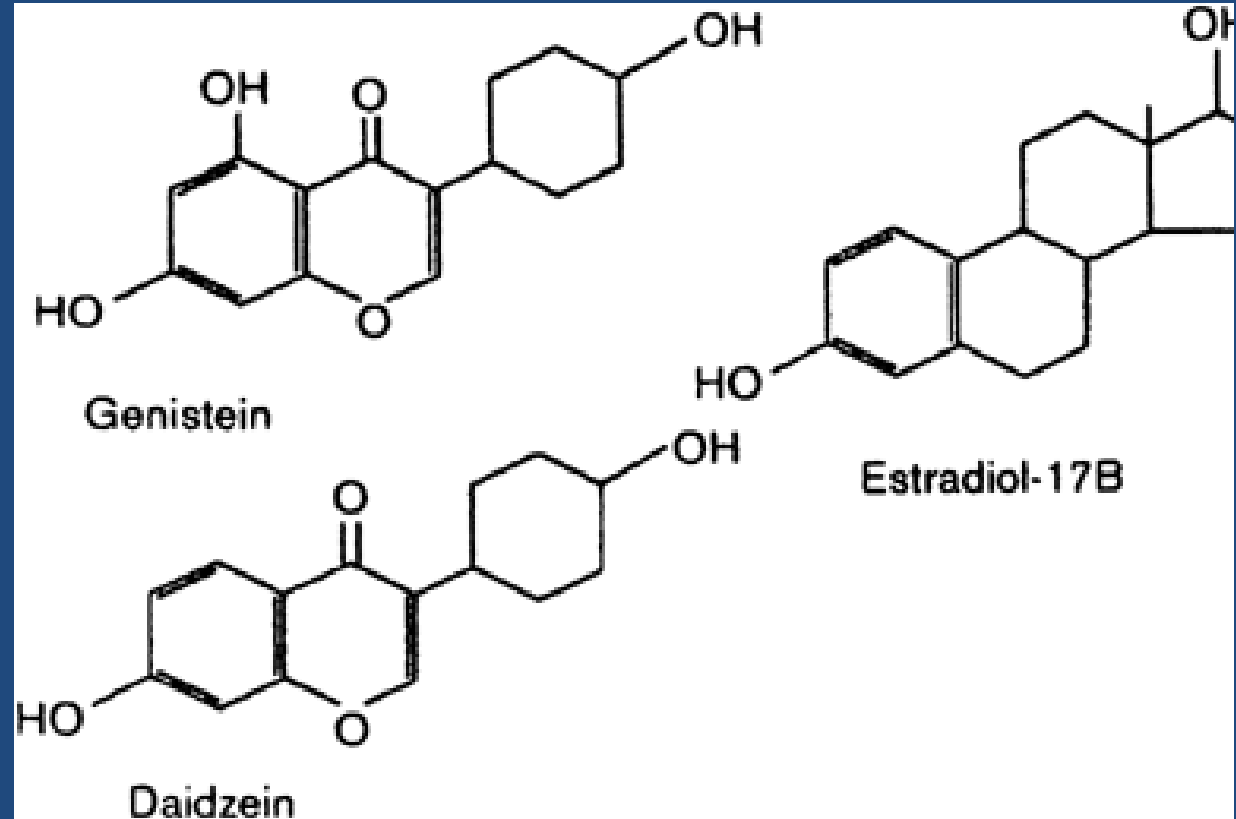


Why is Red/Processed Meat so Bad?

- Processed meat contains carcinogenic substances (nitrates and nitrites)
- Charring brings about Heterocyclic amines that have proven to be carcinogenic
- Red meat tends to contain lots of fat

IS SOY DANGEROUS OR PROTECTIVE?

Myth vs Fact

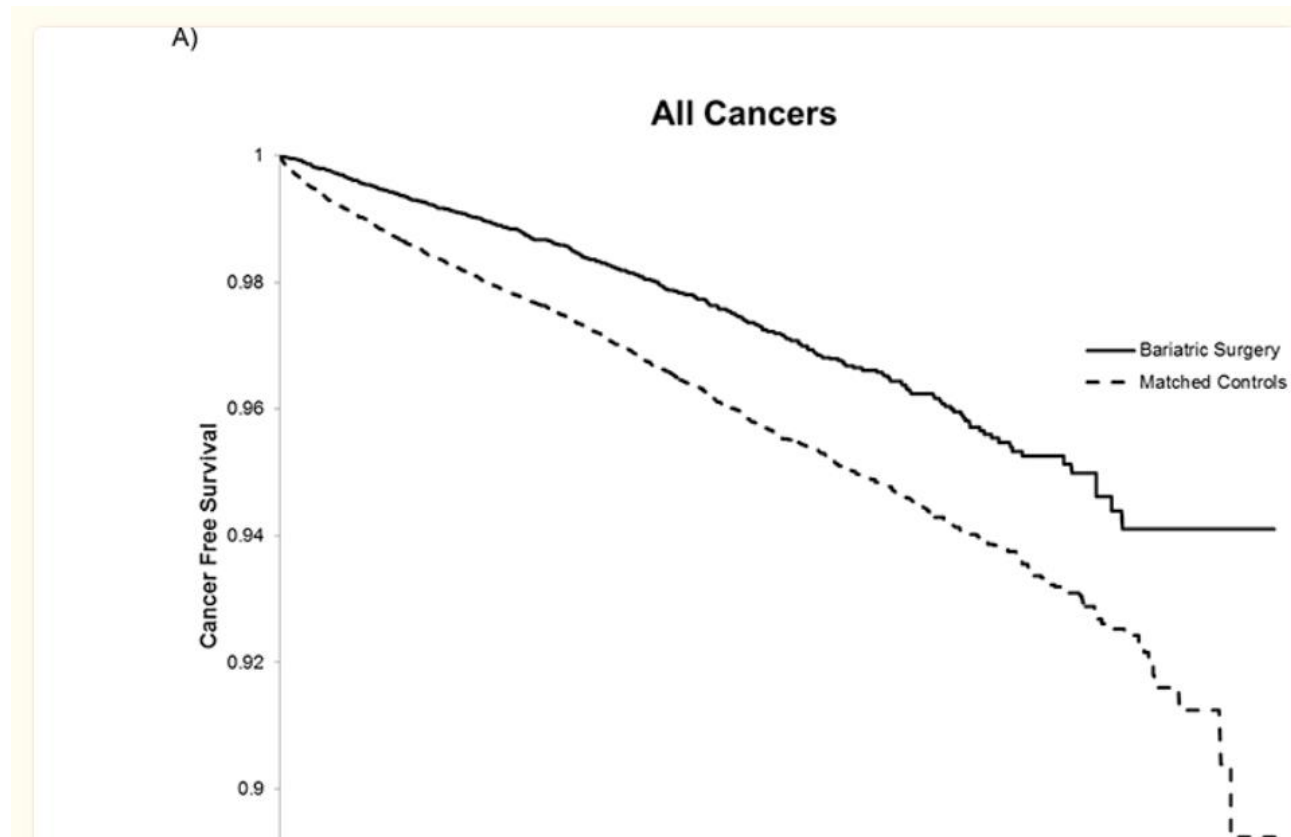


PHYSICAL ACTIVITY — DOES IT HELP?

- Lowers hormone levels
- Lowers insulin levels and insulin-like growth factor I (IGF-1)
- Improves immune response
- Decreases body fat — a reservoir for estrogen production
- Decreases inflammation
- BODY COMPOSITION very important — BUILD MUSCLE!



Refractory Obesity - Consider Bariatric Surgery



December 7, 2023

GLP-1 Receptor Agonists and Colorectal Cancer Risk in Drug-Naive Patients With Type 2 Diabetes, With and Without Overweight/Obesity

Lindsey Wang¹; William Wang¹; David C. Kaelber, MD, MPH, PhD²; [et al](#)

» [Author Affiliations](#) | [Article Information](#)

JAMA Oncol. Published online December 7, 2023. doi:10.1001/jamaoncol.2023.5573

BOTTOM LINE

1

Optimize BMI but
ALSO build
MUSCLE mass

2

Increase
vegetables,
decrease red meat
and animal fats

3

Exercise – cardio
and weight
training

4

LIMIT alcohol

5

Get Vitamin D
levels up

Drugs for risk reduction

- Those with significant family history
- Those with genetic mutations
- Those with abnormal screening, requiring biopsies
- Those whose biopsies showed high risk lesions (ADH, ALH, LCIS)
- Aspirin also plays a role in cancer risk reduction, namely those with increased propensity for colorectal cancer development.

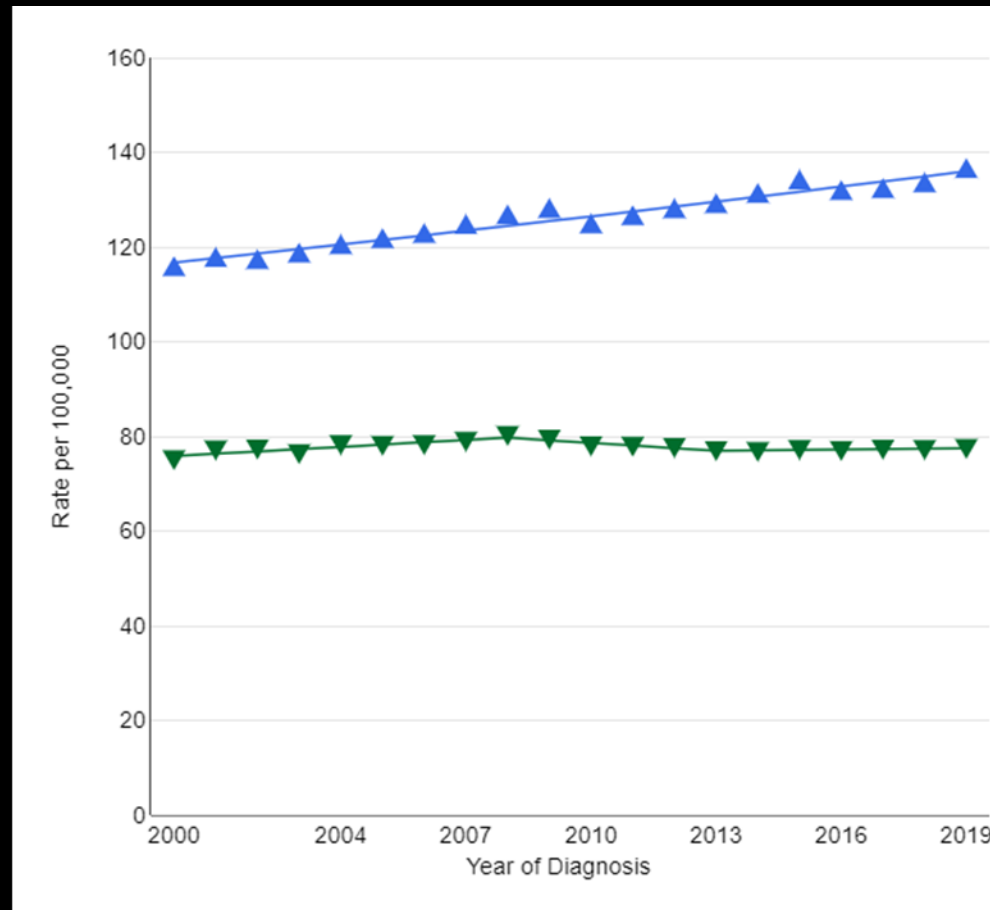


Young Women's Program for Cancer Care at WPH



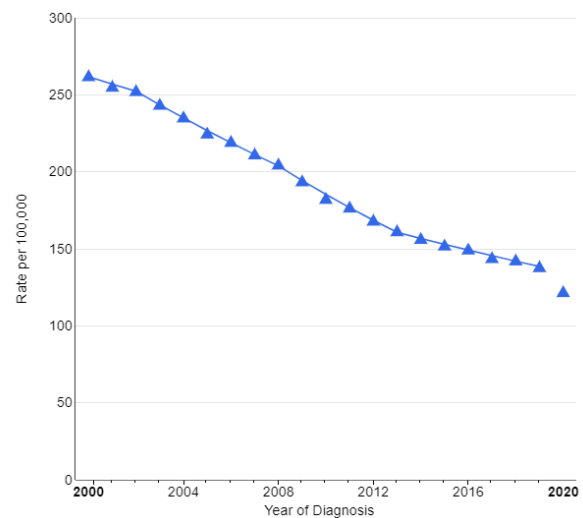
Yael S Zack, MD

Cancer Rates in Young Women



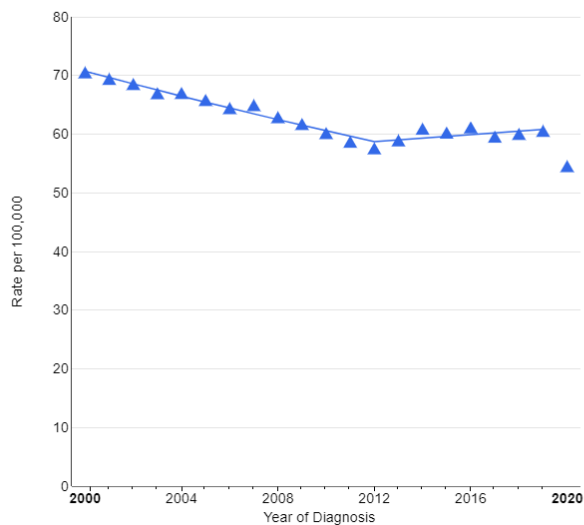
All Cancer Sites Combined
Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2019
By Sex, Delay-adjusted SEER Incidence Rate, All Races, Ages < 50

Colon and Rectum
 Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2020
 By Sex, Delay-adjusted SEER Incidence Rate, All Races / Ethnicities, Ages 65+,
 All Stages



Created by <https://seer.cancer.gov/statistics-network/explorer> on Sun Jul 23 2023.

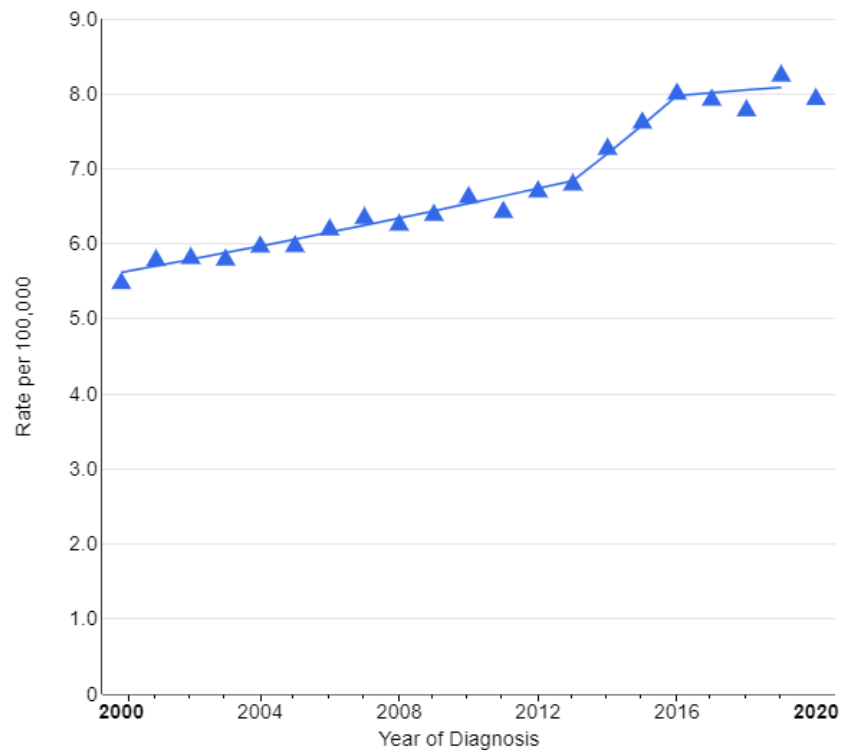
Colon and Rectum
 Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2020
 By Sex, Delay-adjusted SEER Incidence Rate, All Races / Ethnicities, Ages 50-64,
 Stages



Created by <https://seer.cancer.gov/statistics-network/explorer> on Sun Jul 23 2023.

GI Malignancies Are Rising in <50yo Population

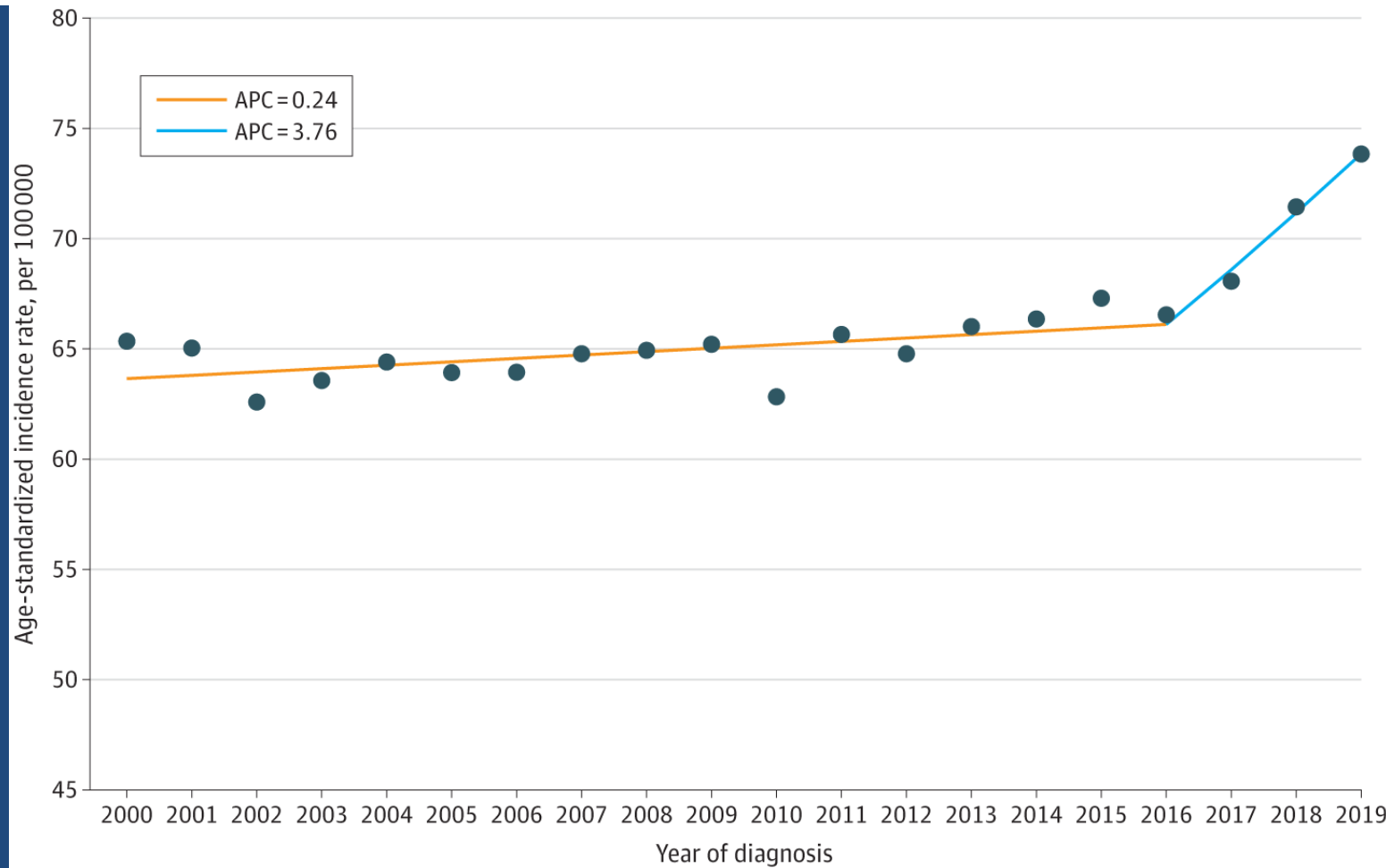
Colon and Rectum
 Recent Trends in SEER Age-Adjusted Incidence Rates, 2000-2020
 By Sex, Delay-adjusted SEER Incidence Rate, All Races / Ethnicities, Ages < 50,
 All Stages



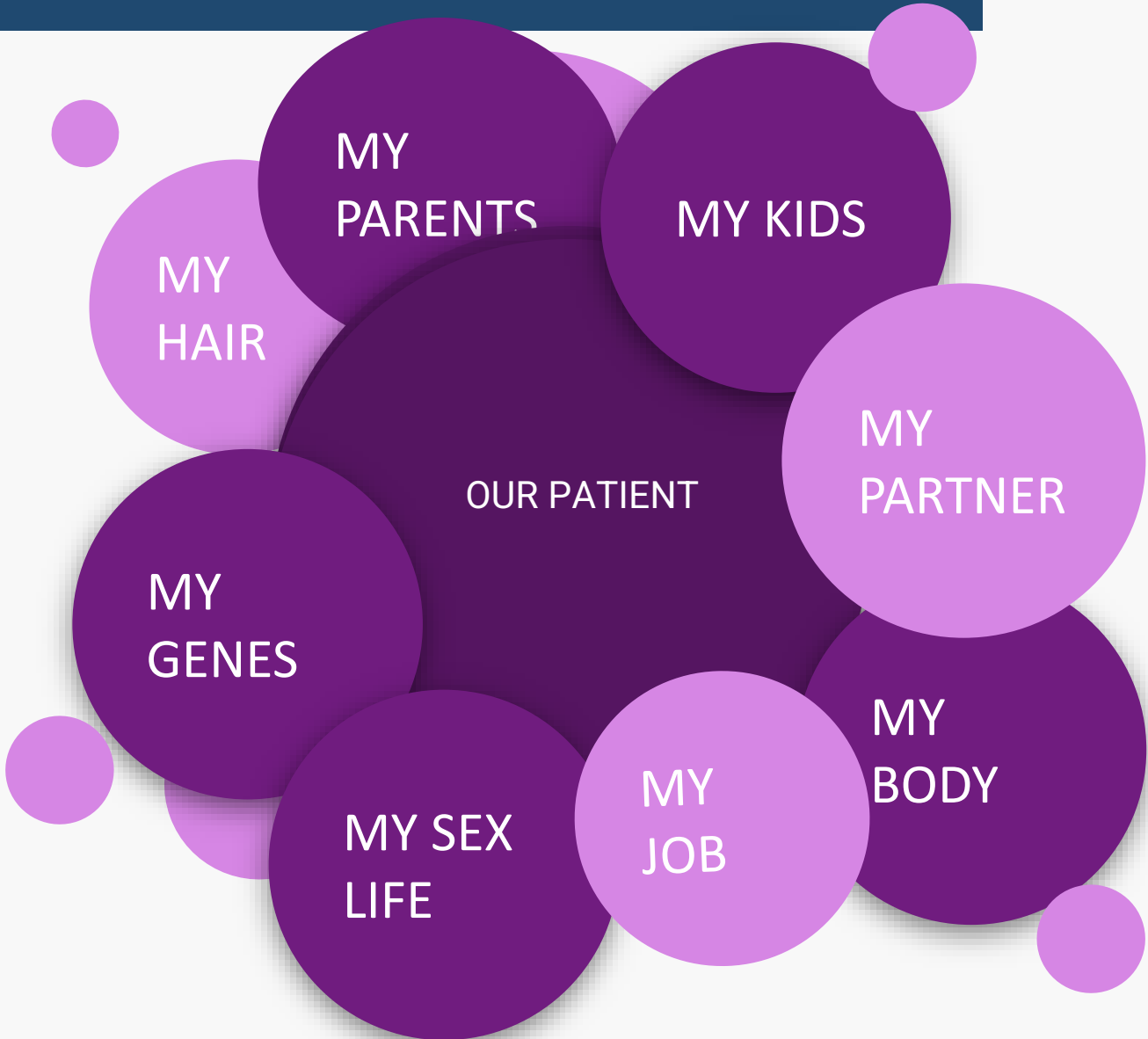
Created by <https://seer.cancer.gov/statistics-network/explorer> on Sun Jul 23 2023.

Breast Cancer Rates of Rise are INCREASING in Young Women

Figure 1. Joinpoint Analysis of Overall Incidence of Primary Invasive Breast Cancer Among US Women Aged 20 to 49 Years, 2000-2019



Young Women Have a Unique Set of Concerns...



Mission Statement

The program for young women with cancer aims to recognize and address the unique needs of women under the age of 50 who have been diagnosed with cancer.

Beyond providing exceptional medical care, the program encompasses all of the multidisciplinary and psychosocial aspects via education and support to treat and guide our patients in the most holistic way.

Initial Management Upon Diagnosis: Creating the network that guides time-sensitive matters.

- Genetics
- Surgery
- Fertility
- Social support with Home and Work Life
- Cold Caps
- Nursing
- GYN
- Psycho-Social
- Support Groups

Throughout and Post Treatment

- Weight Management
- Nutrition
- Exercise
- Lymphedema Treatment
- Sexual Health
- Psycho-Social

The Team

Oncologist

Nurse Practitioner/

Program Coordinator

Surgeon

Plastic Surgeon

Radiation Oncologist

Geneticist

Gynecologist

Fertility Specialist

Sexual Health Provider

Psycho-Oncologist

Social Worker

Nutritionist

Endocrinologist

Bariatric Surgeon

Exercise Program

Lymphedema Specialist

Nurses

Complementary and Integrative
Medicine

Where We Are Today

- **Active website and brochures**
- **Currently over 160 enrolled patients**
- **Support Group in both Spanish and English**
- **Educational programming every 2 weeks**
 - **(topics such as genetics, nutrition, exercise, alcohol, child counseling, acupuncture, meditation, along with a standing sexual health module)**
- **Multidisciplinary providers and team members participating**
- **Community building events (social gatherings, walks, cosmetics events)**
- **Dedicated nurse navigator and program coordinator**



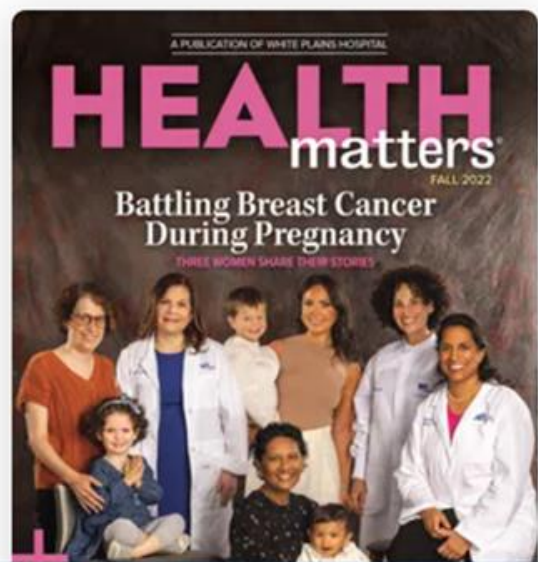
The Young Women's Program for Cancer Care

Home > Cancer care - staging > The Young Women's Program for Cancer Care

The Young Women's Program for Cancer Care at White Plains Hospital is designed to specifically address the issues and concerns of women under the age of 50 who have received a cancer diagnosis. The program offers services to assist these women at every stage of their illness and to address their changing needs over the course of treatment.

At White Plains Hospital, we understand that a cancer diagnosis can feel overwhelming for all patients. However, many women under 50 have different stressors, including family and career concerns, that should be addressed alongside the illness.

Knowing that a highly skilled team of oncology experts is there for you and your loved ones every step of the way can be reassuring.



Find a provider →

Reports

THE YOUNG WOMEN'S PROGRAM FOR CANCER CARE



SCHEDULE OF EVENTS FOR JULY 2024

9

5:00pm

Summer Kick-Off Party/Holistic Support Group

Join us for a special series where we will host our 1st Summer Kick-Off Party, held in person only. This social event is for patients to connect and meet others on similar journeys. This will be a fun and interactive support group with our Holistic Department introducing their program and demonstrating some of the meditation and deep breathing techniques our patients can benefit from.

Location: Center for Cancer Care, 200 Longview Ave, Conference Room, 1st Floor
To join virtually, please use our Zoom link: <https://einsteinmed.zoom.us/j/92611850335>

17

12:00pm

Nutrition Educational Series: How To Eat Healthy on a Budget

Join us for our monthly nutrition educational series, hosted by Cheryl Leslie, RD, CSO, CDN, where we will explore the role that food plays in cancer recovery and long-term health maintenance. Available for all cancer patients, survivors, and caregivers.

Only available via Zoom: <https://einsteinmed.zoom.us/j/93727603368>

23

5:00pm

Sexual Health Series with FNP Melissa Ferrara

Join us for our monthly series on sexual health with sexual health expert, FNP Melissa Ferrara. We encourage you to attend in-person so our community can connect!

Location: Center for Cancer Care, 200 Longview Ave, Conference Room, 1st Floor
To join virtually, please use our Zoom link: <https://einsteinmed.zoom.us/j/92611850335>

25

11:30am

Spanish-Speaking Support Group

Join us for our monthly Spanish-speaking support group for cancer patients, hosted by Monique Morocho, CN-BA. Únase a nosotros en nuestro grupo de apoyo mensual en español para pacientes con cáncer, organizado por Monique Morocho, CN-BA.

Location: Center for Cancer Care, 200 Longview Ave, Conference Room, 1st Floor
Ubicación: Centro para la atención del cáncer, 200 Longview Ave, sala de conferencias, primer piso

The Patients are so appreciative!

"Being a part of the YWP support group and seeing people at different parts of their treatment was beneficial to my healing and also helped me stay positive." -AT

"Connecting with another patient through the YWP support group, who had a similar cancer presentation as myself and went through the same recommended treatment was a tremendous help and provided comfort for me to proceed with treatment, knowing others have done it." -SBR

The Patients are so appreciative!

"The Young Women's Support Group is a program I wish I had joined earlier in my cancer treatment journey. After attending my second meeting, I went home knowing that I had found a safe place to gather information, meet and talk with kind women, and be reminded that I am not alone in my experience. This program has become my extended support network I can lean into and participate in comfortably during my recovery." – Valerie M

"The support group is so great, just seeing other patients, knowing that everyone has a battle they are fighting, but they understand what I've been through... Makes such a difference." – Maria P

SCREENING SAVES LIVES!

For average risk women, start annual mammo at age 40yo

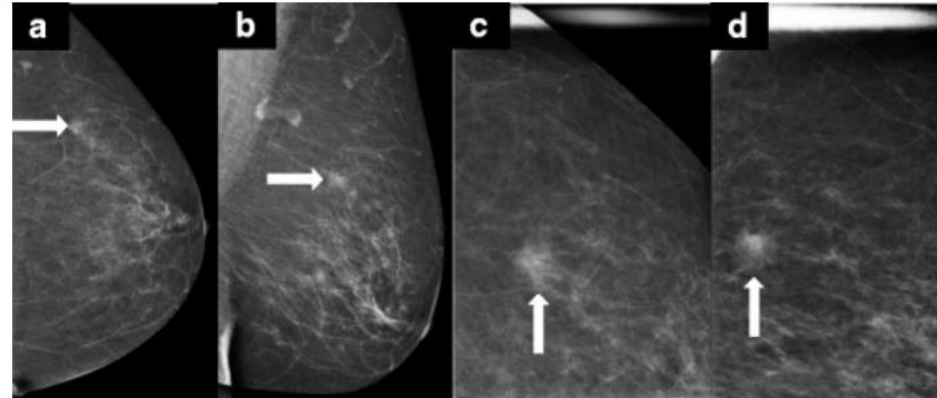
May need additional ultrasound especially if dense breasts

Can continue beyond age 75yo

Fig. 1

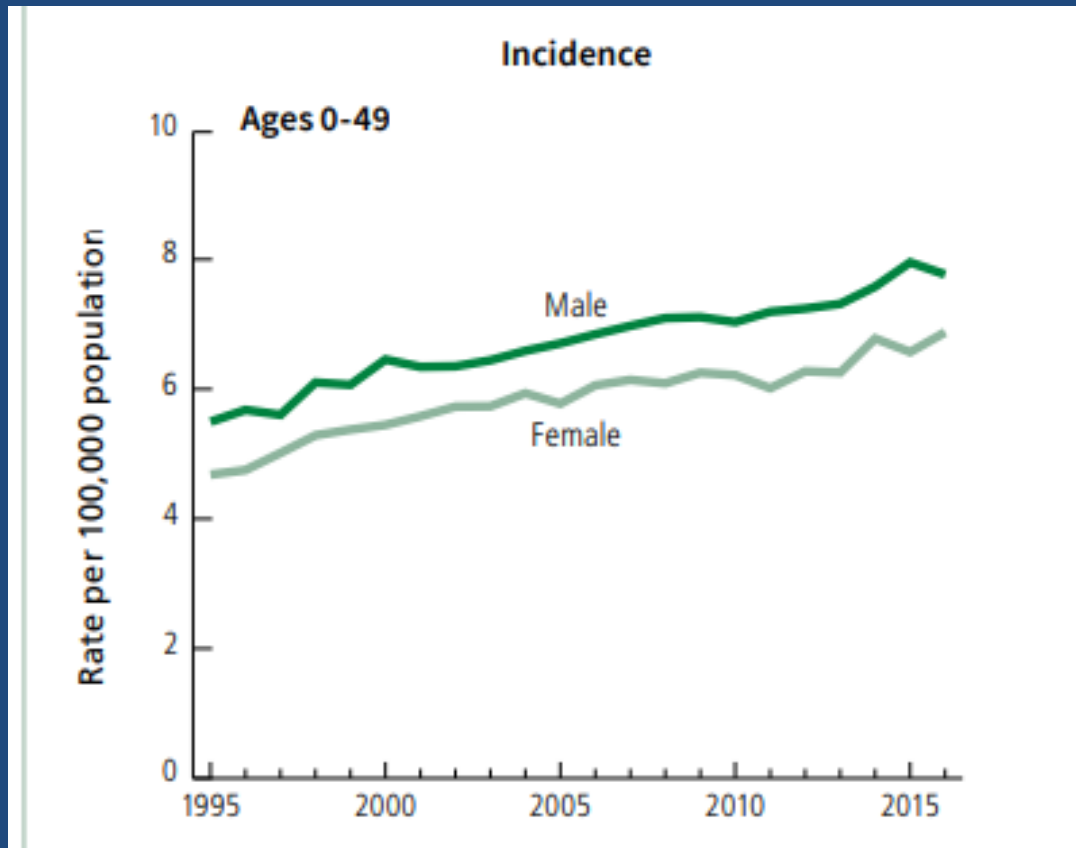
Johnson, et al. *Breast Cancer Res* 17, 94 (2015).

From: [Lobular breast cancer series: imaging](#)



Invasive lobular carcinoma presenting as a mass on mammography. **a,b** Routine craniocaudal (CC) and mediolateral oblique (MLO) mammograms detected a 1.4 cm equal density mass in the left breast. **c,d** Spot compression views in the CC and MLO projections better demonstrate irregular margins. Core needle biopsy was performed and revealed grade 1 invasive lobular carcinoma

The case for earlier screening: GI Malignancies Are Rising in <50yo Population



2020, American Cancer Society, Surveillance Research

START
SCREENING AT
45yo!

Get your
Colonoscopy!
Remove polyps
before they
transform.

Next Presentation: Navigating a New Diagnosis

In the meantime, if you need help, call one of our clinical navigators:

Sereca Stewart

Lisa Schuldt

914-849-3811

THANK YOU!!



WPPA Oncology and Hematology of White Plains (914) 849-7600